BLEPHAROPLASTY;

Making Lids to the Left Eye, after the removal of a Keloid Growth which involved both lids.

BY

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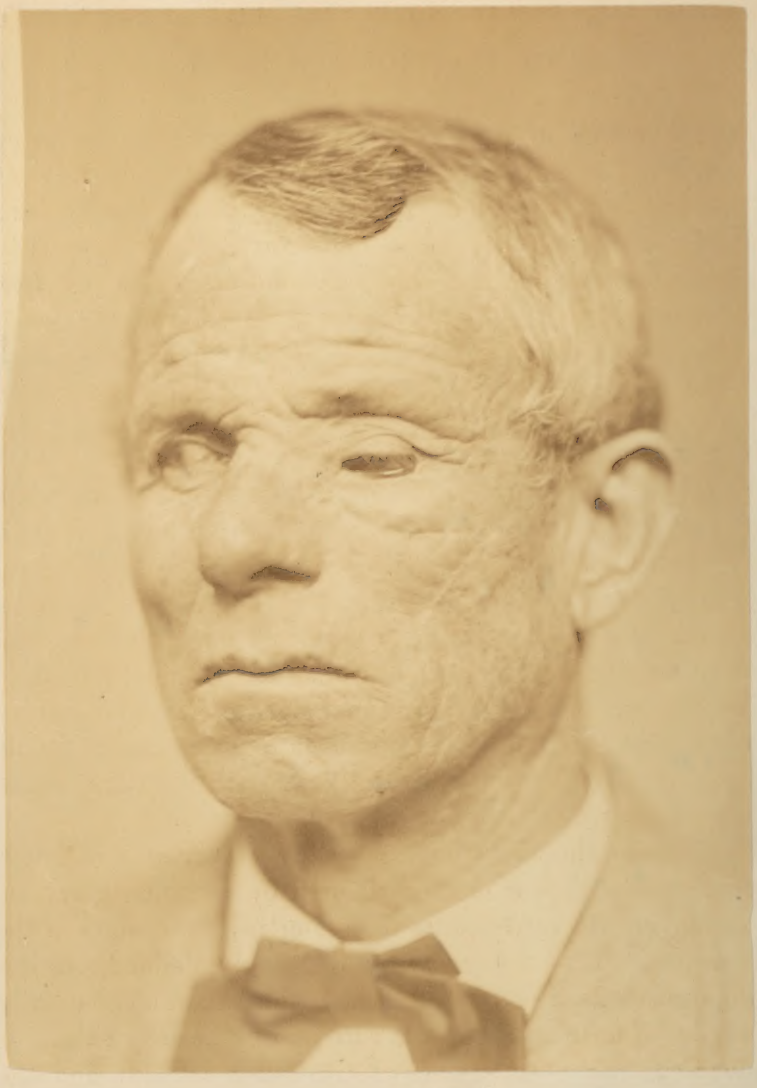

MAKING OF BOTH LIDS TO THE LEFT EYE FROM CONTIGUOUS SKIN.

A keloid growth, of twenty-seven years, involving the entire lower lid and two-thirds of the upper lid, including the skin of the left side of the nose. Growth removed and deformity corrected by a Blepharo-plastic operation, manufacturing the two lids from contiguous skin surfaces. Reported by JULIAN J. CHISOLM, M. D., *Professor of Eye and Ear Diseases in the University of Maryland, and Surgeon to the Baltimore Eye and Ear Institute.*

John Rhineman, aged 60, a sailor, in good health, twenty-seven years since, while in the navy, perceived a small lump, wart-like form, under the lower lid of the left eye. It gave him no pain, and the only discomfort was from its presence. Its growth was exceedingly slow. For fourteen years no treatment was instituted for it. In the meantime it had involved a considerable portion of the surface of the under lid,—and as a broad, elevated, warty tumor had commenced to be conspicuous. At this period he submitted to an operation for its removal, which was only partially successful. The entire mass for some reason was not cut away.

He came for the first time under my observation in 1869, at which period he was much disfigured by an immense wattle or nodular growth surrounding three-fourths of the edges of the left eye lids. The skin growth with sharply defined, precipitous margins was about one-half inch wide, and elevated fully one-eighth of an inch above the surrounding healthy skin. It involved the inner two-thirds of the lower left lid, and the inner one-half of the upper lid, being continuous around the inner canthus, at which point it had encroached upon the conjunctiva to the extent of involving the caruncula in a thick shelf of new growth. Under this fleshy skin the cornea would be rolled when the eye was inverted. In forcible evertion a healthy rim of conjunctiva could still be exposed, which indi-

cated that although the inner edge and even a portion of the ocular surface of the lids with the caruncula had been converted into a nodular growth, the ocular conjunctiva still retained its integrity, allowing free movements to the eye ball. The puncta lachrymalia having been destroyed, epiphora was an annoying accompaniment. Although the tumor now represented twenty-two years growth, it had never caused pain, nor had it taken on ulceration.

I recognized in the disease an old acquaintance, a keloid growth, so common among the blacks of the Southern States and Carribean islands; although I had seen that disease but seldom among the whites. In early years an accident to the right eye, apparently the good one, had so materially impaired vigor in it that the left eye, with keloid surroundings, was his only useful visual organ. The treatment suggested at this time was to cut off the caruncula which as a protruding shell interfered materially with vision.

In 1870 he again presented himself for treatment. He expressed a desire to be rid of the growth if possible, as he wished to go to sea again, but could not ship on account of his prominent defect. On this occasion I cut away the larger portion of the mass from the inner canthus. The hemorrhage was very free, but was controlled after some delay by pressure. The wound in time cicatrized with decided improvement.

In 1872 he again presented himself with an urgent appeal for relief. The growth had now involved the entire length of the lower lid and two-thirds of the upper one, leaving only the external one-third, with its border fringed with eye lashes. It had also spread to such an extent inward as to encroach over the median line of the bridge of the nose. Points of ulceration were also present over the elevated surface. His general health was excellent.

After careful study, I determined to remove the disease and cover the large raw surfaces by a blepharo-plastic operation. I divided the procedure into two stages; in one I made the upper lid, and in the second, performed six weeks later, I manufactured the lower lid.

In the first operation I removed three-fourths of the growth, in the following way: I commenced by making in the healthy skin, at the edge of the growth, a vertical incision on the bridge of the nose, sufficiently extensive to cover the vertical diameter of the tumor. From this wound extended outward a horizontal incision running directly under the left eye-brow, to the extent of three-fourths of the upper lid, turning then at right angles downwards through the free border of the upper lid. From the lower extremity of the vertical nasal incision a second horizontal incision passed outwards through the healthy skin under the growth upon the lower lid until it reached a level of the inner canthus, when it was made to pass upward through the surface of the tumor and end at the caruncula. All the keloid growth included within these five incisions was dissected away, leaving clean surfaces, as is usual in excising keloid tumors. The hemorrhage was very free, especially from the angular vessel, which would not hold a ligature after repeated trials.

When, after continued pressure, the surface was finally made dry, the plastic operation was commenced. The vertical incision made in the median line of the nose was extended upwards for one and a half inches, until it reached a deep natural corrugation extending transversely across the forehead. A second vertical incision, parallel with the first, extended from the nasal termination of the right superciliary ridge upward, to reach the transverse groove already referred to. These two incisions inclosed a tongue of skin three-fourths of an inch wide and one and a half inches long. A bold incision three inches long was now made across the forehead in the transverse groove, extending equally on either side of the flap of skin. This defined the flap and allowed it to be dissected up to the full extent of the vertical incisions, leaving it attached, however, to the right side of the face by a foot-stalk as broad as the space between the bridge of the nose and the inner canthus of the right eye. The right angular vessel ramified in this flap and ensured its thorough nutrition. The loose flap was now twisted upon its pedicle and brought over to the left side, when it was found to cover nearly the entire raw surface from which the tumor had been removed. In adjusting the flap by twisting it, its upper

edge became the lower edge when in position, and was united to the infra orbital margin of the wound. The extension of the incision in the direction of the median line of the nose being bent so as to be juxtaposed to the nasal incision. The right border of the flap, when in its twisted position looked to the left and was free. To this free border the remnant of the upper lid was to be attached, but between the two there was still a considerable gap to be filled up. This deficiency was met by making an incision three-fourths of an inch long directly outwards from the external canthus, from the end of which temporal incision a second one passed upwards half an inch in length. The remnant of the upper eye-lid, with the flap of skin included within these two incisions, when dissected upwards, permitted the lid to glide across the orbital surface and to be sutured without tension to the free border of the frontal flap. In liberating the lid I had incised only the mucous membrane, so that the elevator muscle remained in tact.

To fill up the large opening in the forehead from which the nasal flap had been taken, it was only necessary to dissect up the skin over each eye as far out as the temporal margin, and up to the transverse incision which had previously been made across the forehead. By traction the two flaps were made to meet in the median line, and thereby closed the entire excavation. Thread silk sutures were freely used to adjust the lines for union by the first intention. The wound was left without dressing, so that the little moisture from the wounds could dessicate, and form a protective scab or crust under which the healing would go on. The patient was given, ℞ Opii, gr. ¾, ext. bellad., gr. ¼, in pill, three times day, for the purpose of quieting irritation. This treatment was kept up for a week, at the end of which time a purgative pill was administered, as the patient had had no action on his bowels from the day of operation. The various lines of incision about the eye healed by the first intention, except a portion of the inferior margin, which was touching the keloid surface on the lower lid. In the forehead, where there had been such extreme traction as to polish the surface, some little suppuration showed itself in the median line of union. This discharge was also allowed to

harden upon the surface as a thick crust, under which healing was perfected in two weeks.

Immediately after the operation, when the severe pain of head somewhat subsided, the patient complained of a loss of feeling, dead sensation over the front and upper part of the head. This was easily explained, the transverse incision across the forehead having necessarily divided the supra orbital nerve on each side.

By the third day after the operation the nasal flap had become quite thick, having at least doubled in bulk and making a very prominent swelling on the left side of the nose. When the new relations became thoroughly established, the swelling all subsided. A cicatricial line was also established where the inferior edge of the flap was brought in contact with the keloid edge of the lower lid.

After six weeks the improvement in the appearance of the eye became so marked, the upper lid having acquired a good deal of elevation power that the patient became urgent to have the diseased lower lid replaced equally by healthy tissue. There was a belt of elevated keloid growth, half-inch wide, involving the entire length of the lower lid, including the ciliary edge, from which all lashes had disappeared. By making a vertical incision downwards from each canthus and joining these by a transverse cut in the healthy skin below the lower margin of the growth the entire disease was removed, leaving a very extended excavation. To fill this large raw space the vertical incision made at the external canthus was extended obliquely downwards for the distance of nearly two inches. Towards the temple a second vertical incision was made including between the two lines a tongue of skin three-fourths of an inch wide, and two inches long. The two vertical incisions were joined by a transverse one on a line a little above the angle of the mouth and the flap dissected up with its broad foot stalk continuous with the temple. This flap was turned at right angles to its former position, and was found to fill up perfectly the raw excavation from which the growth had been removed. Several points of silk suture secured it in accurate juxtaposition. When the skin of the cheek was loosened on each side of the vertical incisions, the two cut edges were easily brought together with-

out tension, and when adjusted by sutures the space from which the lower lid had been manufactured was quite effaced. No dressing was used upon the wound, the surface being left to dry, with dessicated blood scabbing the various lines of section.

For the first thirty-six hours the case progressed well. Then the newly cut surface took on erysipelatous inflammation which rapidly involved the side of the face and threatened the destruction of the flap. Resort was at once had to the internal remedy which is found so valuable in the experience of the surgeons at the Infirmary, viz: the tinct. ferri muriatis in one drachm doses, every four hours, and without the use of local applications. Within twenty-four hours a marked subsidence of the inflammation had occurred, and after a few days the flap had united by the first intention, with suppuration only at the innermost point towards the nose where it joined the flap of the previous operation.

The condition of the patient, now eight months after the operation, is most satisfactory. The temporarily thicked prominence of the flaps is all gone, as is also the red color of the scars, so that he can bear a rigid inspection without exposing the fact that two operations had been performed to remove a most disfiguring disease. The remnant of the upper lid with lashes attached, from constant stretching, seems to have expanded so as to cover well the eye; also to have regained its natural movements, as in winking. The lower lid is, of course, without lashes and resembles that condition of a large class of ophthalmic patients who had suffered from chronic ciliary blepharitis. There is, however, an improvement over this class of patients, as there is no red border to the lid, nor is there any tendency to ectropion. This lid looks well: the upper one also looks perfectly normal, with the exception of lashes absent from the inner and outer canthus edges. The end of the lower lid at the inner canthus would exhibit a few hairs, formerly belonging to the beard near the mouth, were they not carefully plucked out as fast as they show themselves.

The case offers six points of marked interest:

1st. The successful removal of an ulcerated keloid growth, which is so seldom effected.

The growth of twenty-seven years with the wattled cutaneous hypertrophy so characteristic of the disease, had ulcerated at several points. When such a mass is cut away, as had been previously done from these eye lids, it so constantly reappears with the commencing cicatrization of the wound, that the tumor has been classified among the recurrent fibroids. In the present case, in which the entire surface from which the keloid had been removed, had been covered by healthy skin from a distance, there has been so far no appearance of return of the disease. Although eight months have elapsed, the skin in its new locality remains soft, and to all appearances perfectly normal. The results in this case, suggest as a treatment for keloid or recurrent fibroids of the skin, the transplanting of a flap from the contiguous surface to cover the raw space after removal, and not allow the wound to granulate as the means of healing.

2d. Large doses of the tinct. of the muriate of iron for the prompt arrest of traumatic erysipelas.

When erysipelas attacks a recent wound, especially on the face, in old persons, the tendency to a destructive course is very decided and suppuration at least, if not sloughing, is the sequel, that has very few exceptions. Such would have undoubtedly been the case in this instance, had not the treatment, found so efficacious in arresting erysipelatous inflammation, been resorted to. The prompt arrest of an attack of erysipelas by the administration of large doses of the tinct. muriate of iron is no new fact in surgery. For the past fifteen years it has proved so efficacious in my experience that I am no longer alarmed at the intrusion of erysipelas, in cases where it is desirable to secure quick union in the healing of wounds. Where the acid preparation of iron is given, in half drachm to one drachm dose every four hours, it can be relied on as a remedy which will, in by far the majority of cases, protect the patient against the threatened complication. After the use of the iron for twenty-four hours in this case, I had evidences in the reduction of the swelling that I had not misplaced confidence in the remedy, although the rapid inroads of the disease had marked an aggravated attack.

3. Silk sutures, well waxed, are more convenient and useful than metallic sutures in healing most wounds by the first intention.

Metallic wires make awkward sutures, both to apply and remove, especially when eye lid wounds are approximated with them. As a rule, a well waxed thread will not readily imbibe the secretions from a cut surface, and as long as it will remain as a thread deficient in decomposable animal fluids, it is as innocuous as the metal thread, which produces no irritation, because it does not imbibe. In face wounds, which unite so speedily, sutures accomplish their full work in two or three days, when they may all be withdrawn. In the above case some of the fine silk well waxed threads were left in ten days, merely to test their ability to irritate. When finally removed, the needle puncture had so closed up that the thread was tightly hugged by the healthy skin, without the slightest trace of suppurative action.

4th. Nervous sensation in the scalp and forehead restored after complete loss by nerve section.

The transverse incision across the forehead from one temporal prominence to the other, which enabled the lateral flaps to slide together and efface the excavation from which the skin for the manufacture of the upper lid had been taken, necessitated the division of both supra orbital nerves. This section caused the dead, benumbed sensation of the forehead and front of the scalp, which was the most prominent complaint of the patient during the healing of the wounds. In the sliding of the flap upon the frontal transverse incision the nerve string, at cut ends, must have been separated nearly half an inch. Some time after cicatrization was perfected the benumbed sensation gradually disappeared, and now, at the end of five months from the nerve section, the sensation to touch has been so perfectly re-established that the patient responds immediately to the touch of a pointed instrument over any portion of the scalp above the transverse cicatrix.

5th. Acquired sensitive impressions in the flaps, referring to their new locations.

This is a very singular feature in this case of conservative and reproductive surgery. When the new eye-lids are touched

with a sharp point, the lids being closed, so that the instrument is not seen, the point of pressure or the point touched, however slightly, without pressure being transmitted through the thickness of the flap to impress the deep nerves beneath the flap, was recognized at once in the new relation. The point with hair upon it from the beard of the face near the mouth would be called at once lower lid, when touched, and not cheek. The nose covering and upper eye-lid in no case was called forehead, where the skin eight months since belonged, but when touched was always referred to as upper lid or nose.

6th. The case is of great interest and rarity when viewed as a double blepharo-plastic operation.

The patching out of the surface over the lachrymal sac is not an uncommon operation in opthalmic surgery. The manufacture of even half of a lid has often been effected at the hands of specialists. Even an entire lid may have been very successfully made from contiguous tissues; but very seldom do we find in the annals of surgery a destruction so complete, necessitating so extensive an oblation of the entire lower and two-thirds of the upper lids, so satisfactorily concealed by plastic operations.